

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

Claims 1-12 (canceled).

13. (New) A layout, delivering an output signal intended to form a time reference, including:

first oscillator, including a silicon resonator of frequency F_1 and of natural frequency F_{10} , generating an output signal, said resonator having a first order thermal coefficient α_1 ;

an oscillator circuit including a second oscillator, said second oscillator outputting a signal and including a silicon resonator of frequency F_2 different from that of said resonator of said first oscillator and of natural frequency F_{20} ;

said resonator of said second oscillator presenting a first order thermal coefficient α_2 in a ratio $\lambda.F_{10}/F_{20}$ with said first order thermal coefficient α_1 , λ being a proportionality factor, and said oscillator circuit also including a frequency divider dividing said frequency F_2 of said signal output of said second oscillator by said factor λ and generating an output signal of said oscillator circuit;

means for generating, by frequency difference between said signal output by said first oscillator and said signal output by said oscillator circuit, a first temperature-stable time reference;

means for determining a frequency drift due to the temperature of said signal output by said first oscillator by comparing the signal output with said first temperature-stable time reference; and

programmable correction means which, according to the value of said drift, divide the frequency of said signal output by said first oscillator and generate said layout output signal forming a second temperature-stable time reference.

14. (New) The layout according to claim 13, further including:

means for counting, during a counting phase and over a predetermined number of cycles of said first time reference, a number of pulses generated by said first oscillator; and

means for determining said frequency drift and controlling said programmable correction means according to said number of pulses counted and said number of cycles of said first time reference during which counting was enabled.

15. (New) The layout according to claim 14, further including:

means of selecting a standby mode for intermittently setting said second oscillator to the standby mode, wherein said counting phase runs during a phase of activity of said second oscillator.

16. (New) The layout according to claim 15, wherein said means of selecting a standby mode includes means for varying the time interval between two successive phases of activity, according to the accuracy required for said second time reference and/or to said number of pulses counted for said first oscillator in at least one of the preceding counting phases.

17. (New) The layout according to claim 14, further including means for generating temperature information from said number of pulses generated by said first oscillator in said counting phase.

18. (New) The layout according to claim 15, further including means for generating temperature information from said number of pulses generated by said first oscillator in said counting phase.

19. (New) The layout according to claim 16, further including means for generating temperature information from said number of pulses generated by said first oscillator in said counting phase.

20. (New) The layout according to claim 13, further including means for storing calibration information concerning the first temperature-stable time reference.

21. (New) The layout according to claim 14, further including means for storing calibration information concerning the first temperature-stable time reference.

22. (New) The layout according to claim 17, further including means for storing calibration information concerning the first temperature-stable time reference

23. (New) The layout according to claim 13, wherein said correction means includes a programmable frequency divider having a range of division factors with which to compensate the frequency drifts of said first oscillator due to the temperature and/or the absolute accuracy of the first oscillator.

24. (New) The layout according to claim 17, wherein said correction means includes a programmable frequency divider having a range of division factors with which to compensate the frequency drifts of said first oscillator due to the temperature and/or the absolute accuracy of the first oscillator.

25. (New) The layout according to claim 22, wherein said correction means includes a programmable frequency divider having a range of division factors with which to compensate the frequency drifts of said first oscillator due to the temperature and/or the absolute accuracy of the first oscillator.

26. (New) A time base including a layout according to claim 13.

27. (New) A thermometer including a layout according to claim 17.

28. (New) A thermometer including a layout according to claim 22.

29. (New) A thermometer including a layout according to claim 25.

30. (New) A timepiece including a layout according to claim 13.

31. (New) A timepiece including a layout according to claim 17.

32. (New) A method of generating a signal intended to form a time reference including:

generating a first output signal of a first frequency F_1 by a first oscillator including a silicon resonator of natural frequency F_{10} and of first order thermal coefficient α_1 ;

generating a signal of a second frequency F_2 , different from said first frequency, by a second oscillator including a silicon resonator of natural frequency F_{20} and which

presents a first order thermal coefficient α_2 in a ratio $\lambda.F_{10}/F_{20}$ with said first order thermal coefficient α_1 , λ being a proportionality factor;

dividing said second frequency F_2 of said signal output by said second oscillator by said factor λ , to generate a second output signal;

generating a first temperature-stable time reference by frequency difference between said first signal output by said first oscillator and said second output signal;

determining, by comparison of said signal output by said first oscillator with said first time reference, the frequency drift due to the temperature of said signal output by said first oscillator; and

correcting, according to the value of said drift, said frequency of said signal by said first oscillator to generate said signal forming a second time reference.